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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,070	02/20/2002	Makoto Kida	SUSU118765	7026

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EXAMINER

JACKSON, ANDRE L

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,070

Applicant(s)

KIDA, MAKOTO

Examiner

Andre' L. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Applicant's disclosure on pages 11 and 12 respectively refers to a "projection end section 19". Figures 1-15 omit reference sign (19). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Applicant's disclosure includes several translation spelling errors. A few examples of such errors are found on page 10, line 21 "outputs" and page 11, line 20, "flattered".

On page 12, either state --the grease grooves are -- or -- a grease groove is --. In line 8, insert a comma after "therein".

On page 13, line 25, insert -- 34 -- after "nut". Appropriate correction is required.

Claim Objections

Claim 10 is objected to because of the following informality: Insert a period at the end of the above claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 5 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,381,808 to Kida. Kida discloses a hinge comprising a frictional body (33) made of resin and having an elongated bearing hole with a tapered inner surface (Fig. 3) and a center line and at least one lubricant groove (33 a) cut in the tapered inner surface (col. 5, lines 27-29) having an opening and configured to hold lubricant; a rotation shaft (31) having a tapered peripheral surface (31a) and inserted in the bearing hole of the frictional body; a tightening tool which moves the rotation shaft and the frictional body relative to each other, thereby to hold the shaft tightly in the bearing hole, wherein the lubricant groove remains open even when the tapered inner surface is deformed as the shaft exerts a pressing force on the tapered inner surface, and the tightening tool includes a screw (31b threaded end portion of the shaft) and a nut (37) set in mesh with the screw.

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Regarding claims 4 and 5, as seen in figure 3, the frictional body includes an inclined elongate recess or groove formed in a longitudinal direction relative to the shaft within an inner surface of the frictional body relative to a centerline of the body. See column 3, lines 19-24. An outer collar (32) is tightly fitted about the frictional body.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 6-8 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kida in view of USPN 6,286,187 to Chang. Kida discloses that the inner surface of the frictional body can include several recesses where grease is pooled but Kida does not illustrate or disclose that a cross-sectional view of the recesses are substantially V-shaped or that the width of the recesses are greater than the height or depth of the recesses, where opening edges of the recesses are radiused. Chang teaches a rotary hinge assembly comprising a rotation shaft (1), a frictional body (2) that receives the shaft and a cylinder part (13), the cylinder part including an oil groove (133) of a V-shape having a wide opening with edges extending at an angled radius as seen in a cross-sectional view in Fig. 2B. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the hinge of Kida to include the rotary hinge assembly as taught by Chang to provide an improved lubricant hinge system for

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the purpose of retaining or pooling sufficient amounts of lubricant throughout the life of a hinge system.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kida. Kida discloses all the limitations of the above claim except Kida, in the preferred embodiment, fails to disclose a spring member provided in a compressed state between the frictional body and the tightening tool. As shown in the admitted prior art figures 1 and 2, these hinge assemblies include compression springs (17, 25) sandwiched between a fixed washer (18) and a rotation washer (16) or a nut (24) to prevent friction from locking the rotation of the hinge parts when being displaced. However, since the frictional body of the preferred embodiment of Kida includes "springy characteristics" Kida omitted the need for the compression spring, but it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the hinge of Kida to include a compression spring sandwiched between the frictional body and the tightening tool as explained by the admitted prior art to provide proper frictional rotation of the working parts as a matter of preference in design. See column 5, lines 12-16.

Conclusion

Additional references are cited on the PTO 892 form but were not used to determine patentability of this application instead the references gave background information on friction hinge assemblies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' L. Jackson whose telephone number is (703) 605-4276. The examiner can normally be reached on Mon. - Fri. (10 am - 6 pm).

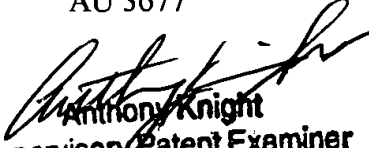
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (703) 308-3179. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1018.

André L. Jackson
Patent Examiner
AU 3677

ALJ
August 12, 2003


Anthony Knight
Supervisory Patent Examiner
Group 3600